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ABSTRACT

This study sought to determine whether there is a correlation between depression and aggression in adolescents. Subjects, 41 eleven-year-olds and 22 fifteen-year-olds, completed the Brown Aggressive Tendencies Inventory and the Children's Depression Inventory. The effect of demographic factors such as gender, age, socioeconomic status, and parents' marital status on aggression and depression scores was also studied. In addition, attitudes toward parents, siblings and school were investigated as they affected feelings of depression and aggression. Findings indicated that although the correlation between aggression and depression was significant in 11- year-olds, it was much more significant in 15-year-olds. The results suggest that the relationship between aggressive behavior and depression becomes stronger as children become older, but further research is called for. Contains 20 references. (JPB)

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Juvenile Depression and Aggression:

Is There A Linkage

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Abstract

This study examined the relationship between depression and aggression in adolescence, (N=41 eleven year olds, 22 fifteen year olds) using the Brown Aggressive Tendencies Inventory and the Children's Depression Inventory. Although the correlation between aggression and depression was significant in eleven year olds, it was much more significant in fifteen year olds. As children become older, the relationship between aggression and depression becomes stronger. Further research is needed to determine whether there is a cause and effect relationship between two variables.

Juvenile Depression and Aggression:
Is There A Linkage?

Depression in adolescence has long been the topic of discussion for many psychologists. In the 1960's, with such studies as Douvan & Adelson and Offer (Peterson 1993), psychologists tried to examine the types of effects that the adolescence period had on a child. Since then, research in the area of depression in adolescence has flourished. The American Medical Association held a study in 1996 where the reports indicated that 60 percent of the students surveyed often had feelings of depression. That could be interpreted as up to 6 million juveniles in the United States have had feelings of depression (Black 1996). Another person has predicted that "7-14% of children will experience an episode of major depression before the age of fifteen" (Brown, A. 1996).

Perhaps this number seems surprisingly large. It has been suggested that while many children are depressed, they are not always able to express how they are feeling (Brown, A. 1996). Since depression is not always easily detected, perhaps we should look at the definitions of depression. Mary Lou Ramsey, professor at New Jersey's Trenton State College, defines depression as a "disturbance characterized by feelings of sadness, inferiority, inadequacy, hopelessness, dejection, guilt, or shame (Black 1996)." Ronald Comer, Princeton University, defines depression as a low, sad state in which life seems bleak and its challenges overwhelming (Comer 1996). While there are many different definitions for depression, most all would agree with the common symptoms of feelings of worthlessness, thoughts of suicide, fatigue, and loss of appetite (Benjamin, Hopkins, & Nation 1994).

Depression can be masked in different ways depending on the personality of the depressed individual and the severity of the depression. Some may invert and seem to

withdraw from the world. Others express their depressive feelings with displays of restlessness, agitation and often anger. This is frequently misinterpreted as behavioral problems. This misinterpretation seems to be the case with depressed youth. They often mask their depression with boredom, irritability, risky behavior, and aggression (Oster& Montgomery, 1996, Brown, A. 1996).

The present study examined aggression and depression in juveniles. It was hypothesized that there would be a correlation between aggression and depression so that the more depressed a juvenile is the more likely that child will act out aggressively. This hypothesis was based on work by Del Barrio, Moreno, & Olmedo (1996). They suggested that there was a relationship between aggression and depression in children. In their study, they found that in children ages 8-11, there was a relationship between aggression and depression. In a study of juvenile delinquents at a children's home (Brown & Calhoun 1996), the experimenters grouped the children into two groups. Those that had been at the home for nine to twelve months and those that had been there for 0 to four months. When comparing the aggression scores between the groups (26.63 and 29.11 respectively), there was not a significant difference. The same held true for the scores on the depression inventories.

The present study examined the general youth population hypothesizing a correlation between aggression and depression. This study also investigated how demographics such as gender, age, socioeconomic status and marital status of the parents are related to aggression and depression scores. In addition, attitudes toward parents, siblings and school influenced feelings of depression and aggression were studied. It was hypothesized that there would be a positive correlation between the scores on the aggression scale and the scores on the depression scale so that the higher the score on the depression inventory the higher the score on the aggression inventory. The dependent variables, (depression and aggression), were measured by the Children's Depression

Inventory (CDI) and the Brown Aggressive Tendency Inventory, respectively. The independent variable, age of the child, had two levels, eleven and fifteen year olds. It was hypothesized that the children which were in the fifteen would have higher scores on the aggression and depression inventories than the children which were eleven.

Method

Participants

The first participants were enlisted from a population students attending a rural Kentucky county elementary school. Three classes of eleven year olds were used and the participants were chosen based upon who returned a signed parental consent and demographics sheet to their teacher.

The second group of participants were selected from a population of students attending a rural Kentucky county high school. Two health classes, consisting of fifteen year olds were used and the freshman participants were selected based upon who returned a signed parental consent and demographics sheet to their teacher. All of these students were offered an incentive of extra credit points by their teacher for their participation.

Materials

The material included six items. The first three materials were distributed to the parents, in a packet, for them to read over and return the appropriate information to their child's teacher.

1. A letter to the parents, which also served as the parental debriefing form (see appendix).
2. The parental consent form (see appendix).

3. A demographics sheet that the parents were to complete and return with the consent (see appendix).

4. The Total Aggression Score (TAS)(Brown 1997). The TAS is composed of 27 questions, some of which were taken from the Faces Scale (Andrews & Withey, 1976), Violence Self-Assessment, and the Personal Anger Inventory. The TAS dealt with the child's feelings about their parents, siblings, friends, teachers and themselves. The first section of the inventory(questions 1-6) had faces that ranged from extremely happy(A) to unhappy(G). . Beneath, there was a list of questions that dealt with the child's particular feelings for the day about a variety of topics. Responses were scored on a 1-7 scale so that every "A" would receive one point and therefore every" G" would receive seven points. A score of seven would indicate the most depressive answer and a score of one the least depressive answer.

The second section of the inventory (questions 7-12) had faces that ranged from extremely happy(A) to extremely angry(G). This section dealt with the child's feeling of anger toward siblings, teachers, and family. Responses were scored on a 1-7 scale so that every "A" would receive one point and therefore every "G" would receive seven points. A score of seven would indicate the most aggressive answer and a score of one the least aggressive answer.

The rest of the questions (13-20) were scored on a 1-5 scale, where the higher the score the more aggressive the answer. On the questions where the responses would be either a yes or no, the yes received one point and the no received no points. On the question asking how the child was punished, the following was the scores given. Not punished=1 Talked about the problem=2 Time-out=3 Grounding=4 and Spanking=5.

The last section of this test(21-27) were given a point only if there was a check in the blank. When all of the points were totaled, the result was the Total Aggression Score

(TAS) (117 points). The highest possible score on the aggression scale indicated the more aggressive child (see appendix).

5. The SRA (Brown 1997) looked at the child's self reported aggression. This score was composed of questions, from the Aggression Inventory, that dealt with how the child perceived aggression. (See description for scoring above.)

6. The Children's Depression Inventory (CDI) (Kovacs, 1982). This inventory examines the commonly accepted symptoms of depression that the child has experienced over the two weeks prior to the testing. There are groups of three sentences and the child is asked to chose the one that best describes their feelings of the previous two weeks. The responses are scored on a 0-2 scale so that 2 represents the most depressive symptoms and 0 represents the lack of the symptom. The range is from 0-54. Half are arranged so that the first answer in the group of three is scored a 2 and the other are arranged so that the third choice in the group of three would be scored a 2 (see appendix). When totaled this score is the depressive score (CDI).

Procedures.

Two groups of children were tested in school settings. Three classes were eleven year olds and the other two classes were fifteen year olds. Each class was used only after authorization by the principals of each school and the authorization of the teachers of the classrooms.

The first group consisted of the children who were eleven. These children were first approached and given a packet which contained the consent form, letter to the parent and demographics sheet. They were asked to take the packet home and to return the demographics sheet and a signed consent to their teacher. They were given two weeks in which to do this. There were numbers at the top of each packet that corresponded to the

numbers on the top of the consent, and demographic forms within. Two weeks later the packets that had been returned were checked by the experimenter for a signed consent and demographic sheet. If both were found, then the demographic sheet and informed consent were stapled to a copy of the Aggression Inventory and the CDI. The signed consent was used to insure that the appropriate test was given to the appropriate child and then torn off. It was then placed in an envelope to ensure confidentiality. The experimenter read over the inventories with the children so to answer any questions that arose.

The second group of participants were fifteen years old. These children were first approached and given a packet which contained the consent form, letter to the parent and demographics sheet. They were asked to take the packet home and the return the demographics sheet and a signed consent to their teacher. They were given two weeks in which to do this. There were numbers at the top of each packet that corresponded to the numbers on the top of the consent, and demographic forms within. Two weeks later the packets that had been returned were checked by the experimenter for a signed consent and demographic sheet. If both were found, then the demographic sheet and informed consent were stapled to a copy of the Aggression Inventory and the CDI. The signed consent was used to insure that the appropriate test was given to the appropriate child and then torn off. It was then placed in an envelope to ensure confidentiality. The experimenter read over the inventories with the children so to answer any questions that arose.

At the end of each testing section, the participants were asked if there were any questions and the experimenter answered those.

Results

Scores from all the measures were entered into the SPSS program. The statistical procedures used were a correlation matrix, descriptive statistics and a discriminant analysis. A discriminant analysis was used to determine the equality of the two age groups. The lack of significant difference in this model showed both groups to be equal on these measures (See Table 1).

Descriptive statistics showed the mean scores of the aggression scale (TAS) for participants in both groups. The mean of the eleven year olds was 43.83 (See Table 2). The mean for the fifteen year olds was 52.32. The eleven year olds, on the SRA had a mean of 26.78, while the fifteen year olds had a mean on the SRA of 32.73. On the Children's Depression Inventory, the eleven year olds had a mean of 9.07. Compared to the mean of 11.28 that the fifteen year olds received on the CDI.

A correlation matrix was used to examine the relationships of the scores for the Aggression Inventory and the CDI for both age levels. For the eleven year olds, the correlation between self-reported aggression (SRA) and total aggression (TAS) $r = 9.56$, $p<.01$. TAS and CDI (depression score) $r = 5.68$, $p<.01$. CDI and SRA $r = 6.03$, $p<.01$. For the fifteen year olds, TAS and SRA $r = 9.46$, $p<.01$. TAS and CDI $r = 8.31$, $p<.01$. CDI and SRA $r = 8.11$, $p<.01$ All of these correlations were significant(Insert Figure 1). As you can see in Figure 1, the magnitude of the correlations between TAS and CDI and between CDI and SRA increases for the older age group

Conclusion

Self- reported aggression and aggression as measured by the TAS are highly correlated in both age groups. This suggests that children of fifteen and eleven years of age are fairly accurate judges of their aggression tendencies.

The main research question examined was whether the relationship between aggression and depression increased with age. Our data show that this is the case, both in self-reported aggression and measured aggression.

The levels of correlation between the Self Reported Aggression, the Total Aggression Score and the Children's Depression Inventory in eleven year olds, indicates a significant relationship at this age. In fifteen year olds, this relationship is even stronger.

This present study shows that there is a possible link between aggression and depression. This finding gives us insight into the developing relationship of depression and aggression in children. Further research is necessary to establish the causal link between the two variables. Then perhaps, we may better understand the actions of our teens. With the growing problem of violence and aggressive acts, as well as the growing number of teens which are depressed, we must understand their behaviors sot that we may prevent casualties, both in the children themselves and in their victims.

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Table 1

Tests of Equality of Group Means

	Wilks' Lambda	Significance
Relation	.99	.40
Race	.99	.55
Gender	.97	.19
Income	1.0	.83
Marital status	.99	.37

Discriminant Model

Wilks' Lambda	Chi-square	df	Significance
.95	3.30	5	.65

Table 2

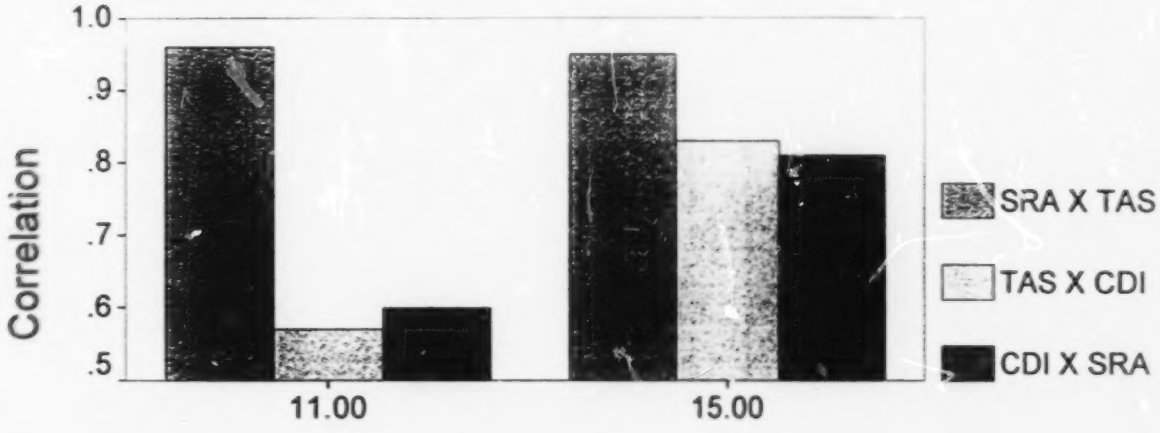
Means and Standard Deviations of Measures by Grades

	Means	SD
Eleven years old		
Total Aggression Score	43.83	12.88
Self-reported Aggression	26.78	9.84
Children's Depression Inventory	9.07	8.26
Fifteen years old		
Total Aggression Score	52.32	12.18
Self-reported Aggression	32.73	9.02
Children's Depression Inventory	11.27	7.48

Figure 1

Correlations Between Variables

by Age Levels



Age in Years

SRA = Self-reported Aggression, TAS = Total Aggression Scale,

CDI = Children's Depression Inventory